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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,447	09/20/2006	Jamie Oag	OPT-01	5335

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LUNDEEN & LUNDEEN, PLLC
2710 Louisiana
HOUSTON, TX 77006

EXAMINER	
JONAITIS, JUSTIN M	
ART UNIT	PAPER NUMBER
3752	

NOTIFICATION DATE	DELIVERY MODE
02/11/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ekonokat@aol.com
marcee@lpats.com
dan@lpats.com

Office Action Summary	Application No.	Applicant(s)	
	10/598,447	OAG, JAMIE	
	Examiner	Art Unit	
	JUSTIN JONAITIS	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-7,9-11,13-26 and 29-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7,9-11,13-26 and 29-34* is/are rejected.

7)☒ Claim(s) *4-7,9-11 and 13-26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2010* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the filter and actuator must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 4-7, 9-11, 13-26, 29-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically Applicant states that the channel width is variable, however it does not appear that the width of the channel is altered. It appears that the defector moves away from the nozzle body increases the space between the nozzle body and the deflector and not actually alters the width (which would be internal to the apparatus).

5. Claims 16-17 & 22-23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically claim 16 states that the nozzle has a central channels extending through the body of the nozzle. It's unclear if this is an additional channel in addition to the channel claimed in claim 29. As best as examiner can determine the central channel is a channel that extends through the deflector and the central beam of the deflector and not actually through the nozzle body in a manner as claimed in claim 17. For examination purposes due to lack of clarity of the central channel placement in the apparatus as the location

of the central channel is important in order to properly understand the claims which depend on claim 16, therefore claims 16-17 and 22-23 will not further be treated on their merits

6. Claim 17 recites the limitation "the central beam" in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4-7, 9-11, 14-15, 24-26, 29-33 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent #1,628,823 to Chester et al.

Chester discloses a nozzle for pipe work comprising a body (nozzle (8) and inlet member (1)) having an inlet and an outlet and an annular channel (bore (11) and bore (12)) extending through the body of the nozzle between the inlet and the outlet and a frusto-conical fluid deflector (deflector head (3)) arranged at the downstream end of the channel adjacent the body outlet the fluid deflector, angled away from the direction of fluid flow), determining the direction of flow of the fluid as it leaves the nozzle, wherein the fluid flow deflector and the nozzle together define a width of the channel at the downstream end (deflector can be positioned at various distances from the end of the nozzle defining the space where fluid flows between the nozzle and the deflector), the width being variable by adjusting the position of the fluid deflector relative to the nozzle body. the body inlet and the body outlet and the fluid deflector are arranged on a longitudinal axis of the body such that the fluid flows from the body inlet along the

channel to the body outlet and impinges on the fluid deflector with minimal loss of energy and the nozzle comprising a self-cleaning mechanism (an increase of fluid pressure to the intake forces the deflector to move and frees solid matter) [page 1, lines 90-105]

Chester further defines the deflector being disposed at an angle of approximately 105 degrees relative to the main axis of the body and the fluid deflector being movably mounted relative to the body to enable adjustment of the position of the deflector relative to the body to facilitate adjustment of the channel. The channel further including a space for accommodating a spacer (spring (5) functions as a spacer) to alter the position of the fluid deflector relative to the end of the channel thereby varying the channel.

The deflector being threadably coupled to the body (deflector (3) is coupled to stem (4) which is in contact with the body by way of spring (5)) such that rotation of the deflector relative to the body advances or retracts the deflector relative to the body, thereby facilitating adjustment of the channel width. [page 1, lines 45-50] The deflecting surface and the body outlet surface are substantially parallel (at the far ends of deflector (3)) as well as disposed at an obtuse angle relative to the main axis (the curved part of the deflector (3)).

Chester further discloses the fluid deflector comprising a central beam (stem (4)) extending from the deflecting surface into the body of the nozzle, the central beam being attachable to the body of the nozzle (central beam's fins (7) are in contact with the walls of the nozzle in it's various positions). The components all together being a kit of parts with a coupling means to connect the fluid deflector to the body (inlet member (1) and nozzle (8)) are coupled together using threads which contain the stem portion of the deflector in the body).

Please note, It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. In the instant application, the

nozzle being used as a hydrocarbon well-test flare nozzle adapted for forming a water wall around a flare in a hydrocarbon well-test operation is an intended use of the apparatus and does not further differentiate the apparatus over the prior art.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent #1,628,823 to Chester et al.

Chester discloses the apparatus as describe above but fails to disclose the frusto-conical deflecting surface extending beyond the maximum width of the channel to direct the flow of fluid.

However It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the frusto-conical deflector of the appropriate size in relation to the channel in order to direct the flow of fluid as desired.

11. Claims 13, 18-20, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent #1,628,823 to Chester et al. in view of U.S. PG-Pub 2004/0028476 to Payne et al.

In re claims 13, 18 and 34, Chester discloses the apparatus as described above including an actuator (the valve controlling the fluid flowing into the nozzle) that moves the deflector (the valve allows more water to enter the apparatus with moves the deflector) to

remove trapped debris from the nozzle. Chester fails to disclose sensors detecting a reduction in the fluid flow rate to indicate trapped debris in the nozzle to send a signal to the actuator.

Payne however teaches it's known to use a flow rate sensor (80) as part of a fluid control sensor group (55) such that the fluid control group allows the system to detect and respond to proper fluid flow or even no flow due to blockage.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a flow rate sensor as taught by Payne to the apparatus disclosed by Chester, as Payne teaches that such modification allows the device to detect and respond to the fluid flow conditions of the device including problems with the source as well as blockages within the apparatus.

In re claims 19-20, Chester in view of Payne discloses the apparatus as described above but fails to specifically the location of the sensor on the apparatus.

However it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the appropriate locations where the flow rate can properly be detected, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

Response to Arguments

12. Applicant's arguments with respect to claims 1, 4-7, 9-11, 13-26, 29-34 have been considered but are moot in view of the new ground(s) of rejection.

13. The non final rejection dated 8/17/2010 is withdrawn. The non final rejection was incorrectly examining the claims filed 6/26/2010 which were the claims submitted for foreign

priority, and not the preliminary amended claims filed 8/30/2006, and therefore the non-final rejection is withdrawn in place of the rejection above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN JONAITIS whose telephone number is (571)270-5150. The examiner can normally be reached on Monday - Thurs 6:30am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUSTIN JONAITIS/
Examiner, Art Unit 3752
2-8-2011

/Dinh Q Nguyen/
Primary Examiner, Art Unit 3752